

# **EASTBOUND I-580 EXPRESS LANES PROJECT**

## **SYSTEM INTEGRATION DOCUMENT CONTROL PROCESS**

**October, 2009**

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## **1. GENERAL**

This document will define, by discipline, the roles and responsibilities that will be performed during the System Integration Document Control Process on the EB I-580 Express Lanes Project. Exhibit A shows the System Integration document control process in schematic form.

## **2. ROLES AND RESPONSIBILITIES**

Each individual that will be working on the electronic toll system (ETS) design, development, implementation and maintenance tasks of the EB I-580 Express Lanes Project will have a defined role and responsibility during the document control process. The various responsibilities are defined below in the following sections. Each individual working on this project shall adhere to their responsibilities to ensure project success. Presented below are the various members of the system design, development, integration, test and implementation team:

- System Integrator – will be responsible for all facets of the toll system design, development, integration, testing, implementation, and maintenance on the EB I-580 Express Lanes Project. The System Integrator will be responsible for operations and maintenance for at least the first year of operation.
- ACCMA Executive Director (ED) – will report directly to the ACCMA Board and will be the primary management person that will be responsible for the entire EB I-580 Express Lanes Project.
- Managing Systems Engineer (MSE) – will be the lead technical engineer on the project and will be responsible to ensure that the tolling system is designed, developed, integrated, tested, implemented, operated and maintained according to the requirements of the EB I-580 Express Lanes RFP, the System Integrator's proposal and other contract documents. The MSE will report directly to the ED and will recommend whether or not the System Integrator has met the contract milestones and requirements.
- Consultant Team Members – are representatives selected by the ED from other organizations that will be working on the EB I-580 Express Lanes Project. Such staff may include but are not limited to selected ACCMA project staff, civil engineering consultants, project scheduling engineering staff, and others that are deemed appropriate by the ED.
- Stakeholder Agencies – include but are not limited to representatives from ACTIA, BATA, CHP, and Caltrans and will provide input on the EB I-580 Express Lanes Project, as determined by the ED.

## **3. SYSTEM INTEGRATION DOCUMENT CONTROL PROCESS**

This section describes the System Integration document control process that shall be implemented and adhered to by the Project Team. The System Integrator will initially

develop a draft of the document. The Integrator will then post the draft document to the Daptiv shared work space, which will allow all Project Team members access to the draft document. The Daptiv post by the System Integrator will also include e-mail notifications to the MSE and the ED that the document was posted and is available for review.

The System Integration RFP will include a comprehensive list of the various documents that will need to be developed by the System Integrator and submitted to the MSE for review during the course of the Project. The MSE will make a recommendation to the ED. The final approval for circulation will be granted, in writing, by the ED.

The MSE will then transfer the draft document to the ACCMA private work space to allow review by selected personnel. Comments will be inserted into the document without the System Integrator seeing the initial comments. The RFP will specify that all project documents will be developed in MS Word to allow the change and comment tracking feature to be used on each document to help facilitate the review and comment process. The MSE will be responsible to ensure that all team members reviewing documents will have a distinctive name associated with their comment tracking feature so each comment can be properly linked.

Coincident with transferring the posted document to the ACCMA private work space, the appointed ACCMA document management person and the MSE document filer will produce a hard copy of the document and enter it into their respective Project Files. Two fully independent hard-copy Project Files will be maintained, at different office locations, throughout the course of the EB I-580 Express Lanes Project to ensure that each piece of project correspondence will be accounted for if contract problems with the System Integrator occur.

The MSE will then determine what the review process should be for that specific document. The MSE and ED will concur on the review process.

The MSE will then assign internal toll system engineering staff and selected consultant team members to review and comment upon the document. Each person will be instructed to review the document in sequential order. The modifications and/or comments will be posted directly into the document to ensure that all comments can be evaluated by the MSE. It will be important for the MSE to carefully determine the sequence in which team members provide their comments to make the document review process as smooth as possible and to ensure that all comments are received.

Once all of the reviewers have had a chance to insert their comments into the posted document, the MSE will request that the ED review the document, as well as the comments that have been made by the other team members, and provide his/her comments. Subsequent to the ED inserting their comments, the MSE will carefully and deliberately review and either accept or reject each of the suggested changes and comments that were made to the document. The MSE will be solely responsible to resolve any conflicting comments or disputes that might have arisen between the various team members. Resolution could be either in the form of a one-on-one discussion with the person that provided the comment at issue, holding a conference

call with selected (or all) team members that commented on the document or a meeting to discuss the open issues with the entire group.

The MSE will then post the document that includes all of the pertinent comments from the review team on the Daptiv work space which is shared with the System Integrator. Integrator staff will then conduct internal reviews of the document comments and either accept or reject all suggested modifications and respond to each comment that was presented to them. The Integrator, working closely with the MSE, will then arrange a meeting to discuss how they will deal with each comment including which suggestions will be incorporated into the next version of the document and which will not be incorporated. For those comments that the System Integrator believes should not be incorporated into the document, they shall provide detailed reasons for not incorporating that specific comment. All issues that are unresolved, by either the Integrator or the review team, will be discussed at this meeting and resolved as a group. The ED has final approval on all issues.

Once all disagreements are resolved, the Integrator will produce a draft final document and post it to the Daptiv shared workspace for circulation to the MSE and ED. The ED will decide whether or not the revised document needs to be reviewed by any of the stakeholders. If stakeholder review is required, the ED will download the final draft version of the document from Daptiv and electronically forward the document to each stakeholder. The ED will specify what length of time the stakeholder has to review and comment on the document and will open copy the MSE on the electronic transmission.

If several stakeholders are requested to review the document, they will be instructed to review it in a pre-determined sequential order to ensure that all suggested modifications and comments are incorporated into a single document. The ED will determine the review schedule and the sequential order for document review prior to sending the electronic file to the various stakeholders.

The final set of comments will be jointly reviewed by the ED and MSE to determine which suggested changes and/or comments are acceptable. The document, which will include track changes, will then be posted to the Daptiv shared workspace so the Integrator has access to the document. The Integrator will review, comment on and accept or reject the various suggested modifications and comments. If there are disagreements, then the MSE and Integrator will schedule a meeting to resolve the outstanding issues.

Once all document comments have been addressed and agreed upon and changes made, the Integrator will post the final version of the document on the Daptiv shared workspace and notify the ED and the MSE via a Daptiv notification e-mail that the document is ready for final review, and approval. The MSE will confirm that all of the discussed and agreed upon changes are effectively addressed in the final document and all of the cogent comments are satisfied. The MSE will provide a written recommendation for approval to the ED. If all of the changes were not incorporated into the document, based upon a review by the MSE, the document review process with the Integrator will be re-established. This process will continue until the document, in the opinion of the MSE, is at the stage of being approved.

Once the ED decides to approve the final document, he/she will inform the System Integrator, in writing and with an open copy to the MSE, and the document file will be saved, in PDF format, on the Daptiv shared workspace so all parties will have access to the document. At this point the document will be in final form and will not be able to be modified in the future. This document will then be incorporated into the System Design Process by the Integrator.

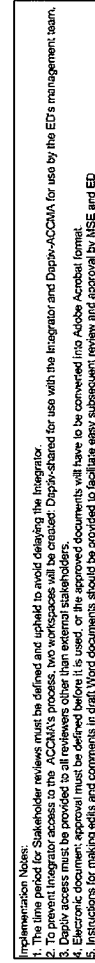
Coincident with transferring the posted document to the Daptiv public work space, the ACCMA document manager and the MSE document filer will produce a hard copy of the document and enter it into their respective Project Files. The various versions of the draft document will remain in the ACCMA private Daptiv workspace for the entire duration of the EB I-580 Express Lanes Project.

#### **4. IMPLEMENTATION NOTES**

Presented below is a list of the various System Integration document control process implementation notes that should be adhered to:

1. The time period that each organization will be allotted for document review, most notably the Stakeholder review, shall be clearly defined, tracked and adhered to avoid delaying the System Integrator. If review comments are not received within the specified time frame given, it will be the responsibility of the MSE to inform the ED and make a recommendation on how to proceed.
2. Two workspaces will be created on Daptiv. A Daptiv shared, public workspace will be created to allow Integrator access to the posted documents. The other will be the Daptiv ACCMA private workspace that will be used internally by the ACCMA ED management team, the MSE and the other consultants that will be working on this project.
3. The access to Daptiv will be provided to all document reviewers other than external Stakeholders.
4. Instructions for making edits and comments in draft Word documents will be provided to facilitate easy subsequent review and approval by the MSE and the ED.
5. Electronic document approval must be defined before it is used or the approved documents will have to be converted into PDF format.

## Eastbound I-580 Express Lanes System Integration Document Control Process



ACCMA Project Management Control Procedure  
Integration Document Review and Approval  
Project Management Document Management/Integration Document Review and Approval  
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